B' cont.

captured at high energy conversion efficiencies and second rates in excess of the first rates and at which capture of the input energy at the high energy conversion efficiencies is likely to cause mechanical damage to the system, the method comprising:

collecting, with a power collecting mechanism, the input energy when present at said first rates and driving an electrical generator with said collected energy for generating and transferring electrical energy, to an electrical load, at a high input energy conversion efficiency corresponding to a first mechanical impedance presented to the power collecting mechanism and,

in response to the input energy arriving at said second rates, varying the impedance of said load for increasing the output current from the generator for reducing the input energy conversion efficiently of the generator for increasing the mechanical impedance of the generator, and including the steps of:

monitoring the rate of arrival of said input energy, and

controlling the mechanical impedance of said generator in response to said monitored rate.

10. A method according to claim 9 wherein said monitoring is performed by sensing the speed of an energy conveying link of the system.

11. A method according to claim 10 including varying said load impedance by an amount dependent upon the sensed speed of said energy conveying link.

12. A method of operating a system for generating electrical power from a source of input energy arriving at variable rates comprising:

capturing the input energy with a mechanism for converting the input energy to mechanical energy for driving an electrical generator for generating and transferring electrical energy to an electrical load, and,

when the input energy exceeds a preselected rate, varying the impedance of the load for increasing the current to the load for decreasing the energy conversion efficiency of the generator for increasing the mechanical impedance of the generator presented to the energy capturing mechanism, and including the steps of:

monitoring the rate of arrival of said input energy, and

controlling the mechanical impedance of said generator in response to said monitored rate.

13. A method according to claim 12 wherein said monitoring is performed by sensing the speed of an energy conveying link of the system.

14. A method according to claim 13 including varying said load impedance by an amount dependent upon the sensed speed of said energy conveying link.

15. A method according to claim 9 including a moving member for transferring energy collected by said collecting mechanism to said electrical generator, and wherein said monitoring is performed by sensing the amount of movement of said moving member.

16. A method according to claim 15 including varying said load impedance by a variable amount dependent upon the sensed amount of movement of said moving member.

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17. A method according to claim 9 wherein said monitoring of the rate of arrival of said input energy is done on a continuous basis, and including the step of continuously varying said load impedance by amounts dependent upon said continuous monitoring of the arrival rate of said input energy.

18. A method according to claim 12 including a moving member for transferring energy collected by said mechanism to said electrical generator, and wherein said monitoring is performed by sensing the amount of movement of said moving member.

19. A method according to claim 18 including varying said load impedance by a variable amount dependent upon the sensed amount of movement of said moving member.

20. A method according to claim 12 wherein said monitoring of the rate of arrival of said input energy is done on a continuous basis, and including the step of continuously varying said load impedance by amounts dependent upon said continuous monitoring of the arrival rate of said input energy. - -